

Amendment and Response

Serial No.: 09/605,118

Filed: June 28, 2000

For: BIFURCATED BIOLOGICAL PULMONARY VALVED CONDUIT

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31. (New) The vascular prosthetic of claim 30 wherein the single inflow end is suitable for attachment to a heart to receive blood from the right ventricle.

32. (New) The vascular prosthetic of claim 30 wherein the biological valvular conduits comprise first and second outflow ends, wherein at least one outflow end is suitable for attachment to a pulmonary trunk.

33. (New) The vascular prosthetic of claim 32 wherein the first and second outflow ends are suitable for attachment to first and second pulmonary arteries.

B2 34. (New) The vascular prosthetic of claim 30 wherein the biological valve of each biological valvular conduit opens at pressures as low as about 1 mm Hg and remains sealably closed so as to withstand backflow pressures greater than about 200 mm Hg.

35. (New) The vascular prosthetic of claim 30 wherein the cross-sectional area of the inflow end of the vascular prosthetic is greater than about 22 millimeters.

36. (New) The vascular prosthetic of claim 30 wherein the cross-sectional area of the inflow end of the vascular prosthetic is greater than about 28 millimeters.

37. (New) The vascular prosthetic of claim 30 wherein the at least two biological valvular conduits are chemically fixed.

38. (New) The vascular prosthetic of claim 30 wherein a first axial seam joins the at least two biological valvular conduits adjacent their inflow ends and upstream of each of the biological valves to form the single inflow end of the vascular prosthetic.

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39. (New) The vascular prosthetic of claim 30 wherein each of the biological valvular conduits is further joined adjacent their outflow ends and downstream of each of the biological valves to form a single outflow end of the vascular prosthetic.

40. (New) The vascular prosthetic of claim 39 wherein a second axial seam joins the at least two biological valvular conduits adjacent their outflow ends and downstream of each of the biological valves to form the single outflow end of the vascular prosthetic.

41. (New) The vascular prosthetic of claim 39 wherein the single inflow end is suitable for attachment to the right ventricle and the single outflow end is suitable for attachment to a pulmonary trunk.

42. (New) A method for making a vascular prosthetic comprising:

joining at least two biological valvular conduits to form a single inflow end having a cross-sectional area larger than a cross-sectional area of each of the at least two biological valvular conduits; and

chemically fixing the vascular prosthetic.

43. (New) The method of claim 42 further comprising removing the at least two biological valvular conduits from a quadruped.

44. (New) The method of claim 42 further comprising joining the at least two biological valvular conduits to form a single outflow end having a cross-sectional area larger than a cross-sectional area of each of the at least two biological valvular conduits.

45. (New) The method of claim 42 wherein joining at least two biological valvular conduits forms the single inflow end having a diameter greater than 22 millimeters.

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46. (New) The method of claim 42 wherein joining at least two biological valvular conduits includes forming an angular section adjacent the inflow end of each biological valvular conduit, and joining the at least two biological valvular conduits along the angular section adjacent the inflow end of each biological valvular conduit.

47. (New) A method for using a vascular prosthetic comprising:

providing the vascular prosthetic formed from a first biological valvular conduit and a second biological valvular conduit, wherein the vascular prosthetic comprises a single inflow end having a cross-sectional area larger than a cross-sectional area of each of the first and second biological valvular conduits; and

implanting the vascular prosthetic in a patient.

48. (New) The method of claim 47 wherein implanting the vascular prosthetic comprises attaching the single inflow end of the vascular prosthetic to a right ventricle at or about a location of the inflow of the pulmonary trunk, and attaching an outflow end of the first biological valvular conduit and the second biological valvular conduit to one of a first pulmonary artery and a second pulmonary artery.

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49. (New) The method of claim 47 wherein implanting the vascular prosthetic includes attaching the single inflow end of the vascular prosthetic to a right ventricle at or about a location of the inflow of the pulmonary trunk; and

attaching an outflow end of the first biological valvular conduit and the second biological valvular conduit to different locations of the pulmonary trunk.

50. (New) The method of claim 47 wherein the vascular prosthetic further comprises a single outflow end, and wherein implanting the vascular prosthetic comprises attaching the single inflow end of the vascular prosthetic to a right ventricle, and attaching the single outflow end to the pulmonary trunk.
